

## **Levee Program Monitoring and Research**

4/14/98

### **Monitoring for project performance**

1. Monitor levee reconstruction and maintenance
2. Monitor subsidence rates, land elevations, groundwater levels, and depth of peat soil
3. Monitor Delta channel cross-sections for sedimentation or scour
4. Monitor seismic activity and damage (DWR ongoing)

### **Monitoring for environmental compliance**

1. Monitoring during construction for environmental impacts (e.g. monitor how waterside work affects fish)
2. Monitor mitigation banks
3. Monitor impacts at borrow sites and along haul roads
4. Monitor effects of dredge activity on water quality and aquatic life
5. Monitor effects of placement of dredge reuse materials on water quality and aquatic life

### **Research proposed by the Levee Program**

1. Create a GIS sediment characterization database for the Delta

(One important goal of the research component of the IEMRP is to reduce areas of scientific uncertainty affecting the achievement of CALFED management goals. Areas of research are to be prioritized by assessing the most serious impediments to implementing the CALFED program elements. Dredging and the placement of dredged materials are very important to success of the Levee program as well as to the ERPP program and possibly water supply reliability. Currently the dredge permitting process is hampered by lack of scientific information on sediment characterization and many permits require extensive monitoring. The CVRWQCB has indicated that it may be able to waive monitoring requirements in areas where reliable sediment data is available. Access to a GIS sediment characterization database would greatly simplify the permitting process.

A large component of the database creation would be an inventory of existing programs to identify information gaps, a task that is already required to prepare the overall IEMRP program. A specific focus on the collection of information and filling of information gaps to create a GIS sediment characterization database would be consistent with the goals of the IEMRP and would greatly aid the achievement of the Levee Program goals as well as other CALFED program goals.)

2. Research and develop methods of addressing subsidence in areas that threaten levee integrity.

Historically, surface elevations of Delta islands have dropped, in some cases, more than 25 feet, due in large part to subsidence. Current subsidence rates are unknown, and effective ways of managing subsidence are limited. CALFED needs to monitor subsidence rates and develop methods to control subsidence. This research should be coordinated with DWR-Central District who has done some research on Delta subsidence.

### **Stakeholder involvement**

The Levees and Channels Technical Team set the goals of the Levee Program. Stakeholders have provided input at the Technical Team meetings and through correspondence. The relevant stakeholders include:

- \* North Delta Water Agency
- \* Central Delta Water Agency
- \* South Delta Water Agency
- \* Delta Protection Commission
- \* Reclamation Districts
- \* Central Valley Flood Control Association
- \* Natural Heritage Institute
- \* Metropolitan Water District of Southern California
- \* San Luis and Delta Mendota Water Agencies

California Urban Water Agencies  
Santa Clara Valley Water District  
Contra Costa County Water District  
Northern California Water Agency  
Association of California Water Agencies  
Natural Resources Defense Council  
Environmental Defense Fund  
The Bay Institute  
Save San Francisco Bay Association  
California Sporting Protection Alliance  
Bay Area Council

- \* Actively involved

As part of CALFED's outreach program I have given presentations to numerous public groups on the goals of the Levee Program.

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